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By E. B. TITCHENER

It happens that a number of graduates, in the department of psychology at Cornell University, have received, during the past few years, an unusually thorough training in 'systematic experimental introspection.' Many thousands of observations have been taken, under controlled conditions, of such consciousnesses as understanding, recognition, relation, expectation, belief; the classical experiments on the thought-processes have been repeated and, in some cases, varied; different kinds of imagery have been studied and their temporal courses traced. Here, then, is a group of observers who seem to be especially well qualified to report upon the nature and appearance of the self-consciousness,—about which, as it is hardly necessary to say, psychologists are very far from agreement.

The reports were obtained as answers to questions which were laid, one at a time, before the individual observers. The method is crude, and I should be the last to claim anything like finality for the results. For one thing, the reports are necessarily partial and imperfect; a complete account of the psychological self, and of the conditions of its appearance, would need to be pieced out from observations taken over an extended period of time. For another thing, the bare statement, even of a highly trained observer, that this or that mode of experience is habitual with him, or that this or the other form of experience is unknown, cannot be accepted as of equal value with the-often unconscious-self-revelation of an experimental record.1 As regards the first point, however, I am satisfied if the reports are correct so far as they go; and, as regards the second, I rely upon the nature of the questions themselves and upon the way in which the enquiry was con-The questions were of a large and simple kind, and, after the first sets of answers had been received, were again laid before the observers, who were instructed to note at their leisure the facts appearing in daily life and in the course of laboratory work, and to hand in another set, of corrected answers, if they found correction to be necessary.

 $^{^1}Cf$. G. E. Müller, Zur Analyse der Gedächtnistätigkeit und des Vorstellungsverlaufes, 1911, 143 ff.

The first question raises the point of the continuity or intermittence of the self-experience. In my own case, "the conscious self, while it can always be constructed by a voluntary effort, is of comparatively rare occurrence." Wundt writes to the same effect: "Psychologically regarded, it is in normal circumstances the ordinary state of affairs that objects are given simply as objects, without there being any thought whatever of the ideating and sensing subject. expression] 'forgetfulness of self' . . . is misleading, in so far as it is prompted by the tendency to consider reference to the subject as the normal . . . state of affairs."2 Mach, in his polemic against the ego, reminds us that not only in sleep, but also "when we are absorbed in contemplation or thought, in the very happiest moments of our lives, the self may be partly or wholly lost (fehlen kann)." On the other side, we read in Calkins that "I am always, inattentively or attentively, conscious of the private, personal object, myself, whatever the other objects of my consciousness;"4 and James, speaking of the 'material' self, remarks that "we feel the whole cubic mass of our body all the while, it gives us an unceasing sense of personal existence."5

The second and third questions deal with the mode of appearance of the self in consciousness, and of the conditions under which it appears. It seems, if we consult the current works upon psychology, that there are three principal ways in which the self may become conscious. (1) There may be a certain class of mental processes which, apart from any determination of present consciousness, carries the self-meaning. For Lipps, e. g., all conscious experiences fall into the one or the other of two great groups, conscious contents and selfexperiences; and the self-experiences are 'feelings in the wider sense of the term.'6 These 'subjective' experiences always appear together with the 'objective'; "I always feel myself somehow." (2) The self-experience may proceed from a

¹Text-book of Psychology, 1910, 544 f. ²W. Wundt, Ueber naiven und kritischen Realismus, Phil. Stud., xii., 1896, 342 f.; Kleine Schriften, i., 1910, 291 f.

³E. Mach, Beiträge zur Analyse der Empfindungen, 1886, 18 n; Die Analyse der Empfindungen und das Verhältniss des Physischen zum Psychischen, 1900, 17.

⁴M. W. Calkins, First Book in Psychology, 1910, 4.

⁵W. James, Principles of Psychology, i., 1890, 333. I may here remark that the quotations made in this Note are illustrative only; I do not attempt either to furnish a complete list of authorities or adequately to characterise the positions of the authors cited.

⁶T. Lipps, Leitfaden der Psychologie, 1906, 3 f., 281; cf. G. Kafka, Versuch einer kritischen Darstellung der neueren Anschauungen über das Ichproblem, in Arch. f. d. ges. Psych., xix., 1910, 116 ff.

⁷T. Lipps, Das Selbstbewusstsein; Empfindung und Gefühl, 1901, 13.

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determination; and may then be either explicit or implicit.1 When it is explicit, the self-meaning is carried by a characteristic group of conscious processes which is, so to say, set apart for this special office; for Wundt, e. g., the self-experience consists "in essentials of a total feeling, whose predominating elements are the apperceptive feelings, and whose secondary and more variable constituents are other feelings and sensations connected with" the vital functions, the movements of the limbs, the condition of the internal organs.² Where it is implicit, we have—under the determination—a certain arrangement and temporal course of processes which, otherwise determined, would lack the special self-reference. Here we may, perhaps (for I am not sure of the instance), mention James' reduction of the spiritual, central or active self to kinæsthetic sensations in head, throat, and respiratory mechanism.3 (3) Finally, conscious selfhood may inhere in the whole of conscious experience, e.g. as the character of 'warmth and intimacy' which, according to James, distinguishes all of 'my' ideas from the ideas that I ascribe to any 'you'.4

So much may suffice by way of introduction; I turn now to the reports. The letters A, B, etc., denote the observers; their present status, as student or teacher of psychology, is indicated by s or t; and sex is shown by the letter m or f. Further reports, from present members of my graduate seminary,—students trained in introspection, but not trained so widely or for so long a period as the members of the other group,—are distinguished by the use of italicised capitals. \overline{A} , B, etc. Corrected reports are placed within square brackets.

Question I. "'I am always, inattentively or attentively, conscious of myself, whatever the other objects of my consciousness.' Is this statement true, as a matter of experience, (a) in everyday life, (b) in the introspective exercises of the laboratory?"

Asf. (a) No. (b) No. The statement is true as a rule at the beginning of an experiment (when I am O), before I have become used to the demands of E. It holds only occasionally after I have become practised and have forgotten that I am under E's observation.

Btm. (a) No. In seeing a play, I am often another person, portrayed by the actor, and do not realise that I am a spectator until my neighbor speaks. So also when I am absorbed in a book. (b) No. I do not realise often that there is any I which perceives the stimuli. I should say that the

¹Cf. the analysis of Belief offered by T. Okabe, this Journal, xxi., 594. ²W. Wundt, Grundzüge der physiologischen Psychologie, iii., 1911, 353 ff. ³W. James, Principles of Psychology, i., 1890, 301; Does 'Consciousness'

exist? in Journ. Phil. Psych. Sci. Meth., i., 1904, 491.

'Principles of Psychology, i., 1890, 330 ff. The precise nature of the 'warmth' (cf. p. 333) does not here concern us; nor does the question of its recognition or realisation (apparently answered by James in the doctrine that the experience of 'mine' is genetically prior to the experience of 'me').

consciousness of self is no more frequent than the 'feeling of familiarity.' I take myself for granted, very much as I take familiarity for granted

in 'immediate apprehension.'

I(a) No. Only occasionally do I realise that there is any I which is standing over against objects or situations. I do become self-conscious, most strongly, in just those situations which seem to demand that I appear not to be self-conscious; when I know myself to be watched, when there is demanded the making or keeping of some motor adjustment (bodily movement, verbal reply). In such cases there are usually the situation (external perception of place and people and so on) and beside it the I (kinæsthetic sensations in upper chest and arms, and organic sensations) and my emotive reaction (pleasantness or unpleasantness, with abdominal organic sensations). This analysis (which I believe to be typical) is mainly from an actual experience yesterday. (b) No; even less than in everyday life. The very instruction from E leaves no chance for one to get self-conscious. The things to be watched are sensations and images and so on, and one watches them just exactly as one watches a thermometer rise. The more careful and strenuous the observation, the less chance does there seem to be for the realisation of anything else than the thing observed.]

Ctm. (a) Not in my case; I am only very rarely 'conscious of myself.' By 'myself' I mean not only the sum total of organic and kinæsthetic sensations representing my body and its movements, but also 'unified experience' vaguely and verbally referred to as 'my' experience. Very often my experiences, simultaneous or immediately successive, are not 'unified,' not referred to a single and identical agent, but they run side by side. (b) Not in my case, if the introspection is what I call successful, that is, if I did not catch myself introspecting. It is true that in introspective exercises I notice much more easily kinæsthetic and organic processes, also more verbal imagery, than in everyday life, because of their greater clearness and reproducibility. I become 'self-conscious,' however, only if their intensity rises above the normal degree, and that is very rarely. The matter of 'unified experience' has never come up in my introspections,

as far as I can remember.

Dsf. (a) No. I am usually inattentively, and at times very attentively, conscious of myself, but there occur fairly numerous instances when I am not self-conscious at all. These periods when I am not conscious of self are of comparatively short duration (usually when I am deeply interested in a book, in listening to music, studying a picture, etc.), and often—but not always—returning self-consciousness leaves me with a feeling of surprise. (b) The mere fact of being an observer in a laboratory exercise seems to imply self-consciousness. I think that I am always somewhat conscious of myself when busied in this way. Yet even in the laboratory there are times when self-consciousness is decidedly marginal. These times are usually during the experiment itself, when perhaps attention is fixed upon some external stimulus; but the vague feeling that I am soon to answer the question 'what was my experience' is always faintly present. [This observer had no opportunity to correct her first answers.]

Etf. (a) I should say almost always. Occasionally I become so absorbed in a book or task or train of thought that, when interruption comes, I feel almost as I do when I have waked from sleep, and the immediate past seems almost blank, and cut off from the rest of my experience. I believe that consciousness of self is at a minimum if not wholly lacking at such times. (b) Yes, I believe so. I tend to visualise anything that I am thinking about, and so in writing introspections: the mental facts or processes that I try to describe are placed in a large dark vagueness which represents my own mind. This is situated at about the level of my head, but is much larger. Again, the effort of introspection is usually accompanied by wrinkling of forehead, drawing of eyes, and vague feeling of tension in head. These things constitute in part what I mean by conscious-

ness of self in the present case. I never forget that I am looking in, and this realisation is so strong sometimes as to amount to sensations from eyes as if turning inward. [This observer had no opportunity to correct her first answers.]

Ftm. (a) No. (b) I have never worked under the Aufgabe of this question; but my impression is that 'consciousness of myself' is occasional,

except in the early stages of practice.

Am. (a) Yes. I am seldom attentively conscious of myself. seems, however, to be always in my consciousness the obscure groundwork of pressures, strains and organic sensations which, become clearer and supplemented by visual images, make up my attentive consciousness of self. (b) Yes. The laboratory experience does not seem to differ from the everyday experience. (a) No. Observation since my first report leads me to reverse my opinion. I am now confident that I am not always conscious of myself. Self-consciousness carried kinæsthetically with possible visual images occurs comparatively seldom. Only when there is some special experience calling attention to myself, either directly as my physical self or indirectly as in a difficult or baffling action or problem (which nearly always calls up the kinæsthetic self), do I have this self-consciousness. The experience may be clear, as when accompanied by visual images of self or in the strong kinæsthetic self of an unusually difficult situation; or it may be unclear, as in vague kinæsthetic feelings of effort. Consciousness is, however, made up most of the time by mixed perceptional and ideational contents without reference to the experiencing self. (b) I have not observed any difference in the consciousness of self under laboratory conditions from that of everyday experience. Even introspection in the laboratory does not involve a constant reference to the introspecting self, although this reference is very frequently present, and often very clear.]

Bm. (a), (b) No. Cf. (a), (b) No.

Dm. (a'), (b') There are certain sensations which characterise my alimentary canal; others my arms, face, legs, etc.; varying, to be sure, with my activity, but nevertheless for any given activity possessing a fair constancy. There are thus a large number of groups of sensations which are frequently present in the various parts of my body; and when some such groups are present (which is practically always) there is consciousness of self; that is, these sensations, by virtue of their habitual attendance upon my activities, possess logical reference to self.

In addition, my ways of thinking and acting—in so far as they are conscious—bear my stamp; the feeling of them is characteristic. Hence when under an Aufgabe or in a particular situation I speak of them, I naturally use the term I think or I act, just as I say I feel, when speaking of the somatic sensations.

But when I do thus make specific use of the idea of self; when I do thus have some psychic term (e. g., the kinæsthetic and verbal image I) which specifically designates the I-ness; then I have no longer mere sensations, images, etc., with their vague reference to self, but now an actual perception. This perception may have various degrees of clearness. It waxes and wanes and revives again. It comes most close to being lost altogether when I become completely engrossed—'lose myself'—in a task. Then, if only for a very brief time, I become objective. It is especially frequent in occurrence with images of future activity.

[Yes. By 'myself' I mean: This centre of material, psychical, social, etc. relations. By being conscious of myself I mean that states or processes of consciousness are present such that they carry a reference to self. Empirically one finds that the self which one means is seldom totally the same in any two cases; it is myself in this or that particular situation that is referred to. Empirically one finds also that the psychical phenomena which carry these references are varied, and seldom totally the same. One does

not find, that is, that any particular set of constant psychical factors (such as sensations of respiration) is the exclusive or predominant vehicle.

On the other hand, generally speaking, continually recurring psychical phenomena (at least, those of somatic character) do seem to me at this writing to be the vehicle of self-reference. There seems to be something of self-reference in the very feeling of moving my eyes, uttering a word, or moving or resting a limb; and this quite apart from any specially set Aufgabe. However, I am quite doubtful as to whether or not familiar sights, sounds and touches do ipso facto refer to self.

I should be inclined to distinguish between sensations of self and perceptions of self. Of the former sort were the tonic sensations in the right leg which were present five minutes ago. These bore a reference (even though vague and almost formless) to myself; they referred not at all to the red house across the valley (which I was not thinking of).

There are degrees of clearness or intensity of perceptions of self, and

there are different kinds of perception, as above indicated.]

Em. (a) No. When I am alone, when I am engrossed in work, when a problem has presented itself, I am not conscious of myself at all. It is only when the environment is new and unfamiliar, or when I am in personal conversation with someone else, or when other individuals suggest the visualisation of myself among them, that I am conscious of myself. Strong kinæsthesis, and especially organic movements, emphasise self-conscious-(b) I am strongly conscious of myself, especially at the beginning of an experiment, because I feel that the situation is new, E converses with me, and I visualise myself. I feel that the reports are of processes peculiarly my own. Kinæsthesis comes out strongly, and this emphasises consciousness of self.

[(a) No. My consciousness of self depends decidedly upon 'the other objects of my consciousness.' I should lay less stress on the situation (mentioned in my first answer) in which I am thrown into a new environment as the occasion of self-consciousness, since I find that even here I am very little self-conscious. As a rule, however, when kinæsthesis and particularly organic sensations are strong, or when I see or hear a reference to myself, then I am conscious of self. (b) No, not often. Here again when reference is made to my experiences, my introspections, my sensations, etc., I may sometimes get a momentary consciousness of self, mainly in visual terms (as one sitting before an experimenter). Seldom, and only in the most trying and unusual circumstances, am I continuously aware of myself for any length of time, here as elsewhere.]

Ff. (a) No. I often lose all consciousness of myself; not, however, for a long period. An uncomfortable position, some distraction of attention occurs, and I am suddenly aware of myself in all sorts of organic sensations. On some days this awareness is more apparent, more frequent than on With certain persons consciousness of myself is invariably present. [Further observation shows that the frequency of self-awareness is dependent upon my physical condition.] (b) Yes. The very fact that introspections are to be given makes me aware of myself. I am then conscious of organic sensations of which, ordinarily, I am totally unaware. [The self is usually in the background; yet I am conscious of organic sensations, of changes of mental attitude, of effort, which generally persist during the entire introspective period.

Gf.(a), (b) No.

Question II. The second question called for a description of the self-consciousness, which should be made "as definite as possible. Is the consciousness of self explicit (e. g., visual image, organic sensations) or implicit (intrinsic to the nature of consciousness, inherent in the course of consciousness)?

Can you bring out the character of the self-consciousness by comparing or contrasting it with other phases of a total consciousness?"

The replies should fall into three natural groups: (1) the reports of those who answer I. (a) in the affirmative, and thus assert that they are always self-conscious; (2) the reports of those who answer I. (a) in the negative, but I. (b) in the affirmative, and thus assert that the introspective attitude always implies self-consciousness; and (3) the reports of those who answer both members of Question I. in the negative. In fact, the replies are not all as clean-cut as this grouping demands, and we must therefore be content, under the first two headings, with a classification a potiori.

(1) Etf. ("I should say almost always.") I have already described my self-consciousness during introspection. It is hard to describe that which is present in everyday life because, when I attempt to do so, it is this introspective self-consciousness which is present. I believe that the more natural kind is somewhat different on different occasions. It often involves organic sensations, and feelings of bodily position and of comfort and discomfort. In the presence of other people it is often connected in some way with their approval or disapproval; and almost always, whether I am alone or not, there is a strong sense of my own approval or disapproval. In other words, it is affectively toned.

Dm. (Occasionally 'loses himself.') I have virtually already answered this question. I find my self-consciousness in groups of psychic entities which habitually reoccur. When my sensations, feelings, images and activities are changed, and somewhat new ones take their place, I have less feeling of self. If they were in continual change and did not characteristically reoccur, I deduce that I should be without the self-consciousness I now have.

I have not said that the consciousness of self is a 'phase of a total consciousness'. Rather the self is a thing meant, a complex logical entity, which in the past has lived in X, is now studying psychology, etc. But that logical entity is represented in the total consciousness of almost any moment in that way which I have already mentioned, viz., the habitual attendance of certain psychic groups. Other designatory terms, so to call them, are visual images of myself in a particular situation, also auditory images of my voice and of voices speaking to me, and again various combinations of these with kinæsthetic images of activity.

(2) Dsf. (Self-consciousness sometimes decidedly marginal.) The consciousness of self is not comparable with the consciousness of external objects. It is not explicit in the sense of coming as visual imagery or organic sensations. It is rather an inherent feeling or knowledge or attitude that tells me that I am that which has images and sensations. Not a consciousness of my physical self as the object of experience, but an underlying unique knowledge of myself as the experiencing subject. I cannot seem to be able to get at it or to analyse it further in introspection. Often it is intense, but often it is merely the background of experience.

Ff. (No qualification.) Sometimes the self appears as a visual image, as if it were a thing apart and separate. The self to which I refer in my answer is, however, an intangible something, forming a sort of background, in which (as I have said) I can distinguish organic sensations.

(3) Asf. Occasionally in the form of an indefinite visual image (this is often *implied* by a vague kinæsthetic complex); sometimes I have also

vague visual images (or kinæsthetic substitutes for them) of other people. Usually via organic sensations, nausea, tightening of diaphragm, changes in respiratory sensations; frequently accompanied by a slight watering of the eyes (this almost invariably occurs when I am 'touched').

Btm. Self-consciousness appears usually in the form of kinæsthetic sensations from the lower trunk or from parts of the body in strained posi-

tions. Sometimes in visual images.

Ctm. My self-consciousness is usually intensely organic, a 'sinking of the stomach,' a blushing and flushing of the face, hot and uncomfortable; I am conscious of the position of my body, and especially of the movements of my limbs, through intensely unpleasant kinæsthetic and cutaneous sensations, of great variety and disconnectedness. If I am standing, the weight of the body is awkwardly shifted from one foot to the other, and one or both hands are put under the coat at the hips, thumbs pointing backwards. All these processes have a fair degree of clearness, with one or another now and then shooting to the extreme focus of attention, ousting momentarily some intellectual process which happens to be running its course in the meanwhile.

Ftm. Chiefly organic sensation. At times, a vague visual image (as if I stood before myself and saw my own face). At times, the *Bewusstseinslage* of responsibility. [I find that my self-consciousness is usually emo-

ional.l

Am. My self-consciousness is definitely explicit. In its clearest form it consists of organic sensations (of a kind of 'nervous strain' quality) in the body, especially in the chest; and, when connected with my 'willing self' or my 'thinking self,' of deep strain sensations in the head. There are sometimes also vague strain sensations in the limbs; these are stronger when self-consciousness means my 'willing self.' Besides the clear sensations in self-consciousness, there are always poorly defined visual images, such as translucent rays being projected from the region of my chest where the organic sensations are strongest, and meaning 'I am the centre of this experience.'

The self-conscious experience seems more often to be a part of other experiences than a thing of itself. It colors the meaning of the others. In itself it resembles the experience of effort, but differs slightly in meaning

and in its persistence.

Bm. It seems to me that all sorts of sensations and feelings may refer to that which experiences, to that which owns and appropriates the experience. I cannot now be more explicit. [Further observation shows me that the self-meaning is most commonly carried by organic sensations, or by visual memory-images of my body doing something; but it is also carried by other sensations and images. The verbal ideas I and I and I may or may not appear. The complex is affectively toned; there is a feeling of warmth or familiarity. I have noticed that the consciousness of self is clearer during inhalation. The experience with me is rare.]

Cf. Chiefly organic sensations; a visual image may be present too.

The consciousness is explicit.

Em. Self-consciousness is partly explicit, manifest in a visual image of myself, organic sensations and kinæsthesis, and in part implicit, as when I recognise my introspections as material peculiarly my own, which E could not directly know. When I am conducting a piece of work, I am never conscious of myself as master of my hands and muscles, brain, etc. The visual image of the work as it is completed is almost continually before me as an end,—of course, with many interruptions; I mean the visual image is the majority factor. It is only when the work, problem or experiment, has been completed that I say 'I have done that.' If, however, a hitch comes (new situation), I may again be enormously aware of myself, as before the problem was begun. The consciousness of self is partly a

visual image of myself at present, *plus* a vague memory image or images (whether visual or not I do not know) of big experiences in the past.

Gf. For the most part, verbal imagery and organic sensations.

Question III. The third question, addressed only to those who had answered I. (a) in the negative, points out that this answer "implies that self-consciousness is intermittent. Under what circumstances, then, is it likely to appear?"

Asf. Whenever I know that other people are observing my physical or psychophysical self, i. e., when I see their eyes fixed on me, or when I think of other people's opinion of me; when I am emotionally stirred up; in comparing my physical or mental characteristics with those of others, or with those of myself at some other time; always when something occurs which, as I say, 'touches' me, rather unexpectedly, e. g., a word of commendation or reproof from another person; when another person refers to a characteristic which he designates as mine; when I am very elated, fatigued, sick; when I am wearing new or ill-fitting clothes; when sitting for a photograph. In general, when I am unusual situation.

Btm. Particularly when a *new* situation is to be met, when there is necessity for making or keeping a new or not entirely familiar bodily adjustment; or when the adjustment was unsuitable. Often also as a

bodily reaction to a situation involving other persons.

Ctm. Most strongly immediately before appearing in public or before some personage of importance; when I hear somebody speaking about me, or read my name in print as mentioned by somebody else; when I open a telegram; in the course of talking, when a familiar word has slipped my memory, or when I get tangled up in an argument. [You have called my attention to the fact that my answers seem to make self-consciousness mainly an unpleasant experience. It is, however, true (I have verified the point by recent observations) that my states of self-consciousness are almost invariably unpleasant. There is sometimes a 'glow' of self-consciousness, which is pleasurable, after praise, recognition, etc., but this is not marked, and in any case is soon replaced by indifference or (if the self-consciousness continues) by an unpleasant, often a strongly unpleasant mood of self-criticism. I am myself a little surprised at the constancy of the unpleasantness, now that I have definitely realised it, since I am by no means of a pessimistic temperament.]

Dsf. Self-consciousness appears usually under some of the following circumstances: in cases of physical pain (organic discomfort), nervous condition, tiredness, when one has made a blunder and feels foolish or has done something one regrets, in a feeling of uselessness or inability to do what is expected of one (by self or others), in vanity or jealousy, in fear, whenever as a rule one thinks of oneself in relation to other *persons* or during purposeful introspection. There are other circumstances in which

self-consciousness appears, and often it is present all the time.

Ftm. I think in the early stages of laboratory practice. Also, I suspect, in observations that involve perception of body (e. g., compass points on skin) and in those that involve extreme capacity of a mental function

(e. g., memorial learning).

Am. [I am apt to experience consciousness of self under the following situations. (1) In many situations of shame. Often, though not always, when I am undressed in the presence of strangers; also when I am in an embarrassing position, especially when I have done something physically awkward or have discovered something wrong with my clothing. In the last case one of the most prominent factors in the self-consciousness is a strong tactual perception [or image?] directly under the part of my dress affected. I am also generally conscious of self when I am ashamed or belittled morally or intellectually, as when I am surprised in doing some-

thing of which I am ashamed, when I realise that I am acting hypocritically, and especially when I am violently accused, whether rightly or wrongly; also sometimes when I am badly defeated in an argument. I experience self-consciousness in this last situation chiefly as a feeling of mental isolation. I get exactly the same consciousness when I realise that I can know directly no one but myself and that I am separated from all others by mediating sensations. (2) In many situations of elation. I am conscious of self when I have a strong feeling of exaltation, as after an intellectual victory, after being paid a compliment, or some other success. This is a definite complex of strong organic sensations in the chest,—which does not always occur even in these situations. It used to be most definite in religious fervor. It now occurs most often in the enthusiasm of a new idea; in enthusiasm there is a set of intoxicating muscular and organic sensations, a large part of which I should interpret as consciousness of self. (3) In many situations of mental effort. The strains that go to make up the feeling of mental effort are in many cases identical with self-consciousness. They are most prominent in this way in the feeling of resolve or determination, especially in repeated resolve that cannot have any immediate motor result. Another striking instance is in stage-fright, where in place of the imaged speech consciousness is largely filled with strains and organic sensations meaning self.

Bm. When thinking of nearest and dearest relations and friends; but not always. When thinking about what I ought to do in a given case; sometimes, but not always. Sometimes when praised or blamed. Especially when alone after having left home with people sorry to see me leave,

It is likely to appear in one's social relations, in some emotional states and religious experiences, rather than when one is absorbed in a given task.

Em. I have already answered this question, under II.

Ff. I have already answered this question. When attention is deliberately turned upon the self, as in observations in laboratory. Under the other circumstances mentioned.

Gf. The consciousness of self appears under unusual circumstances. When I set myself the task of introspecting, or when I am conscious of being alone, or when I feel myself under strict observation: these are some of the circumstances under which self-consciousness appears.

The replies do not, by any means, stand upon the same psychological level. They show clear differences of introspective ability. They show, also, differences of attitude, of training, of point of view. They show, I am afraid, different degrees of interest in the subject; there are answers, of a partial and tentative sort, which have not been supplemented or corrected. Can any conclusions be drawn from such material?

Ouestion I. asks whether self-consciousness is persistent or intermittent. I group the replies under the rubric of sex, and also under that of introspective experience (m, f, for the senior and m, f, for the junior group of observers); I add a q, in cases in which the reply was qualified.

	m	f	m	f	Total
(1) Persistent throughout the waking life		pı	ıq		2
(2) Persistent during introspection		1, 1q	ıq	1	4
(3) Intermittent	3	1	3	2	9

Here 11 out of 13 observers (7 men and 6 women) deny the persistence of self-consciousness throughout the waking life, and 9 out of 13 deny its persistence during introspective as well as during everyday experience. The 11 include 5 seniors and 6 juniors; the 9 include 4 seniors and 5 juniors. The 11 include 6 men and 5 women; the 9 include 6 men and 3 women.

Even the two observers who affirm the continuity of self-consciousness qualify their answers: the testimony to intermittence is therefore stronger than I have made it. And I do not hesitate to draw the conclusion that self-consciousness is, in many cases, an intermittent and even a rare experience. It may, of course, be maintained, in spite of what I have said above, that the method is altogether worthless; or it may be objected that the results are due to 'laboratory atmosphere.' But, at the worst, it is not likely that the text-book statements of the persistence and continuity of self-consciousness rest upon any better method; and the argument from suggestion, in a matter like this, becomes a little ridiculous. Graduate students are not simple sheep.

If this conclusion is accepted, it remains to account for the positive replies of the four observers in the first and second horizontal lines of the Table. It is possible that the four are mistaken. The two senior women of column f had no opportunity to revise their answers; and another observer, as we have seen (p. 544), changes on revision from Yes to No. Contrariwise, the m of these two lines does not change. It is possible, again, that the two groups of observers, the four and the nine, may have understood the question differently, and are therefore talking of different things. But it is not easy to make this possibility concrete, to use it as a ground of explanation; it is at the best a possibility, and by no means a probability; and the fact of change from Yes to No again tells against it. So I incline to the hypothesis of individual difference. The tendency to conscious self-hood is, I believe, one of those "tendencies which represent total directive pressures laid upon the organism, more strongly upon some individuals and more weakly upon others, but in some measure upon all; and which are realised or expressed on very various occasions, and with very varying accompaniment of consciousness" (Text-book of Psychology, 1910, 464, 544).

The persistence of self-consciousness need not—if our results are to be trusted—betray itself in the intercourse of everyday life. Four observers, two men and two women, were asked to name the man and the woman to whom they would most confidently attribute such persistence. All four mentioned the m, no one mentioned the f, of the first horizontal line of the Table. Reference to the replies of Etf and Dm will show that the self-consciousness takes on very different forms in the two cases.

I had thought that the women might prove to be more persistently selfconscious than the men. The question must, however, be left open, not only because our observers are few, but, in particular, because the women of

column f had no opportunity to revise their answers.

Question II. asks for a description of the self-consciousness. Under this heading, the following general results may be noted. (1) There is no evidence of a special class of 'subjective' processes (Lipps). (2) With one possible exception, all

the reports fall under the rubric of determination. We find reference to an implicit self-consciousness in C's 'unified experience,' in D's mention of 'my ways of thinking and acting,' and in statements (B, D, for example) of the variable contents of the self-conscious experience. We find selfconsciousness explicit in E's 'large dark vagueness which represents my own mind,' in A's 'translucent rays projected from the chest,'-probably, indeed, in all the cases of visual imagery, as well as in many organic complexes (A, C). For the most part, however, no hard and fast line of distinction can be drawn between the explicit and the implicit conscious-(3) A possible instance of continuous and all-pervasive conscious selfhood is furnished by the observer \bar{D} .

I do not think it wise to press the data further. I add only a rough list of the constituents of the self-consciousness, in the order of frequency of mention:

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Organic complexes
                                       12
Visual imagery
                                       10
Affective processes
                                        8 (implied in 4 other cases)
Kinæsthetic complexes
                                        8 (probably, in other cases,
                                                      merged in organic)
Conscious attitudes
                                        4
Verbal-auditory images
Cutaneous sensations
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The attitudes are those of responsibility (F), recognition of ownership of introspections (E), ownership of experience (D), and activity in background of consciousness (F).

Ouestion III. asks for the circumstances under which selfconsciousness is likely to appear. Here the one outstanding result is that the experience of self is preponderantly a social matter. Of the 11 observers who replied to the question, 10 (A, B, C, D, A; B, C, E, F, G) refer to some situation which involves the ascription of selfhood by others, or implies personal relations to others.

It seems, then, that the 'material self' and the 'spiritual self' are, for observers of our sort, subordinate to the 'social self;' that the realisation of the self occurs, usually, under a consciously social determination. Here of course, is nothing new. But it is reassuring, in view of the testimony to intermittence, to find that the fact appears thus plainly.

Next in order comes the unusual or novel situation (A, B, C, E [with qualification], G).

I conclude, therefore, that it is not permissible to define psychology as "the science of the self as conscious." This definition was, in fact, rejected by one and all of our thirteen observers.² Self-consciousness appears, in many cases, as an

¹M. W. Calkins, A First Book in Psychology, 1910, 1. ²By twelve, for empirical reasons; by the thirteenth, for reasons that are mainly theoretical. "No. For suppose that there were periods in the consciousness of any individual which were without reference to self:

intermittent mode of conscious experience. Like other conscious attitudes, it takes shape, explicitly or implicitly, under determination. And so far as our results go, the determination is usually social in character.

then such periods of consciousness would not be subject-matter for psychology. Whether such periods exist is a matter for psychology to investigate; it may not assume their absence beforehand. Or suppose that there were phases of consciousness which in no measure had reference to self,—as indeed there seem to be: then such phases would be barred from the study of psychology."